

REPORT  
OF THE  
NATIONAL EVALUATION  
OF ACADEMIC ASPECT OF  
NON-FORMAL EDUCATION PROGRAMME  
IN  
OKISER

NON-FORMAL EDUCATION  
DEPARTMENT OF PRE-SCHOOL & ELEMENTARY EDUCATION  
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# EVALUATION STUDY OF NONFORMAL EDUCATION IN ORISSA

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## Non Formal Education in Orissa for the Age Group 6 - 14 and 9 - 14

An evaluative study of academic aspects of  
N. F. E. in Orissa.

### CHAPTER - I

#### CONCEPTUAL ANALYSIS AND STATE POLICY

##### The Need of the Study

Non-formal Education as a supportive and complementary system to formal education for the universalization of elementary education was introduced in Orissa in 1980. N.F.E. centres are established in a phased manner in Orissa under the joint sponsorship of central and state governments. In 1950 according to article 45 of the Indian Constitution it was declared that the universalization of elementary education should be achieved by 1960. But it could not be achieved due to some socio-economic factors. Even it could not be achieved in 1985 and time of universalization of elementary education has been extended upto 1990. But it appears doubtful now whether universalization of elementary education upto the Age group 14 will be attained by 1990 for many physical and socio-economic **barriers**.

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elementary education. As there will be drop outs the number to be covered in N.F.L. centres will be very much increased. However to universalise elementary education nearly 60 lakhs children more will be covered by both the formal and non-formal sector in the seventh plan which is a tremendous task.

There are at present 8,481 teachers working in N.F.L. centres. The remuneration to each primary level teacher is Rs.105 per month. The remuneration to two primary school teachers who work on parttime basis in a middle level centre is Rs.60 and Rs65 per month. The teachers in the middle level centres do not find interest to take up teaching learning job in middle level centres as they are tired in their own job in primary schools. The low remuneration also does not interest them to take up their job in the Middle level N.F.E. centres. So middle level centres are not popular. The teacher pupil ratio at the primary level centres in Orissa is 1.36 and the teacher gets remuneration at the rate of 105 for 25 children. The teacher pupil ratio at the middle level is 1.16. Learning for 3 hours a day is made in the centres according to Government directives.

Nine states out of 22 in India have achieved less than others in the matter of removing illiteracy and universalising elementary education. They are Andhra Pradesh, Assam, Bihar, Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh and West Bengal. These states are declared as backward states in those respects. 75% of the non-enrolled children of the country belong to these nine backward states of India. Those children belong to the weaker sections of the community like scheduled caste, scheduled tribe and economically backward communities. The scheme of non-formal education was introduced in different states for these weaker sections of the community at the initiative of the central government. The central government contributed the major share of financial aid to universalise the elementary education according to article 45 of the directive principles of our constitution for educating the drop outs and unenrolled children of age group 9-14 with two objectives.

The two objectives were:

- (1) to enable the willing children to get entry into the formal schools at multiple points.

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Universalization of elementary education depends upon three factors. Schools will be opened in all places for school going children within the range of one kilometre. All the children within 6-14 years must be admitted into the schools. They will be retained in the school till they complete elementary education. Even today 20 percent of the children of age group 6-14 have never been admitted into the school. Only 25 percent of the students who are admitted to school reach the end of elementary stage. The rest 75 percent become dropouts. Our budget cannot provide schools and formal learning programme to all the children between 6-14. So it will be impossible to universalise elementary education by 1990 if a massive Non formal Education Programme is not undertaken with sincerity and devotion for non formal education is less costly and more life oriented than the formal system. So N.F.E. would educate 75 percent of our children of age group 6-14 as a supportive measure to formal education for universalization of elementary education. If both the formal and non-formal education system are not properly strengthened universalization of elementary education cannot be achieved.

got that kind of education to grow up as developed persons, as useful workers, as life long learners as responsible citizens of a democratic society. They don't get joyful and meaningful learning experiences. They only acquire factual learning from books and do not develop in a balanced manner. That formal education does not meet all the life situations. The other type of deprived children are dropouts of formal schools or non-goers of schools who are deprived of literacy education of formal schooling because of their poverty, socio-economic and other barriers. These poor children are deprived of their fundamental rights to education. These children of socio-economic backward communities are unable to attend the formal schools which run on fulltime basis. To meet the educational needs of these deprived children non-formal education is designed as a part time or own time education. Non-formal education is not conceived as an inferior alternative to formal education. But it is conceived as a powerful force to do social justice to the deprived and underprivileged class of the Indian people and to bring education close to life of a developing society.

The Basic Education created by Gandhiji has some similarity with the non-formal education. Gandhiji based his Basic Education on work relating to life to create a society having faith in truth, non-violence and social justice. But it was a formal education to universalise elementary education meant for socially and economically oppressed people of India deprived of the minimum education. But the Indian people did not implement it properly and thinking it unsuitable to India where bookish knowledge and passing the examination have been established in the domain of education. Perhaps people thought it was too revolutionary to cater to the educational needs of the people of India. The Basic Education and the non-formal education have many points of similarity but the Basic Education was formal unlike non-formal education.

Like the Basic Education the Non-formal Education is a powerful force for the development of society. In the common wealth conference on N.F.E. held in New Delhi in 1979 Non-formal Education was recognised as a powerful force. It was recognised there that N.F.E. is a powerful concept. This like all good education emphasizes that source of knowledge is power. NFE is a

revolutionary power as well. It assists the poor and down trodden majority of the people of our society as a powerforce to organise themselves to end the state of injustice in which they are forced to live. N.F.E. is the power of the people to change society and have the way for establishing justice, tolerance and understanding in society. The philosophical and social basis of Non-formal Education applies also to Adult education. So N.F.E. is a powerful concept and if sincere efforts are not made for its implementation it may meet the fate of the revolutionary Basic Education and will be considered as a poor substitute for formal education. So periodic evaluation should be taken up in the process of its implementation to find out its strength and weakness and on the light of the evaluation its implementation should be taken up in the right direction to meet the educational needs of the people effectively. So this evaluative study, it is hoped, will add new strength for the proper implementation of the scheme in future.

#### CONCEPT AND PHILOSOPHY OF N.F.E.

Non-formal Education is not formal education. It provides some education to nonattenders of

schools. It provides opportunity to life long education to people in a learning society. It develops the wholeness and makes learning pleasant and meaningful and aims to establish good social justice and order. A great educationist has described Non-formal Education as a compelling need in developing countries where universalization of elementary education is a crying need and where majority of the children of age group 6-14 and adult remain illiterate.

The concept of any education is very important for it is reflected in the objectives, in the curriculum in methods of instruction, evaluation and organization in brief in its total delivery system. The educational planners, policy makers and administrators should know precisely a working definition of N.F.E. To arrive at a precise definition of N.F.E. the modes of delivery and instructional objectives of Formal, education Non-formal education and informal education need comparison.

Modes of delivery of formal education. Non-formal education and informal education are not different alternatives but complementary activities within a single system. Formal

education is hierarchically institutionalised and graded. Informal education is an unorganised lifelong process by which everyone acquires knowledge, information skills and attitudes incidentally. (Non-formal education is organised and systematic learning activity carried on outside the formal system.) It is not an alternative education system nor is it a short cut to the rapid education of any people. Those who fail to get formal schooling get a second chance to learn through nonformal education. Poor people of urban and rural areas through integrated approach acquire useful knowledge, skills and attitude and learning experiences associated with work. Non-formal education is organised. But it is not fully and formally institutionalised. It is systematic but flexible and not according to routine. The context of delivery is out of school. It is less formalised in content, method and form of instruction. In formal education there is no relation between what is learned in schools and what is required in the field of work outside. Non-formal education however establishes a bridge between the world of knowledge and world of work. Non-formal

education combines living and learning as Gandhiji desired in Basic education. The learners are not fulltime students as in formal and routinised system. They are not divorced from the realities of life to work for a living. The non-formal learners put to work what they learn to solve economic, social and political problems vitally related to them. Non-formal learning cannot be confined to waterlight subjects. It can be had through integrated experience. Non-formal education meets the needs of the individual and the society. The formal school is organised to teach something whereas in the non-formal centres the children learn. Selflearning is to be carried on in non-formal centres where the teacher is not a dictator but facilitator of learning. N.F.E. Programmes are meant for those who work and want to learn. So it is parttime education. Uniformity and rigidity dominate the formal schools, while diversity, flexibility and elasticity are conceived for N.F.E. So N.F.E. is an open system based on learners specific needs and the needs of their communities with emphasis on need fulfilment and development.

The above discussion may help to form concept for organization and curriculum making of N.F.E.

(1) N.F.E. is intentional and systematic. It is not incidental like informal education. N.F.E. is a planned education effort with definite educational programmes and goals.

(2) The goals of N.F.E. and formal education are different. But they have something common to achieve. Both try to increase personal and national production and development.

On the one hand nonformal education stresses more on the needs of relevant education and envisages a flexible programme related to individual learners need. On the other hand the formal system is rigid and offers a time bound centralised curriculum. Non-formal education is an open system and prepares an individual if he likes to enter the formal system at any point.

(3) N.F.E. emphasises on immediate and practical aspects and pins faith in utility practicability rather than theory and philosophy. It makes the learner conscious of his rights, duties and responsibilities as an individual and as a citizen. It leads him to end social injustice.

Dialogue and discussion help him to do so.

(4) Any situation outside the school which affords appropriate experience is taken as the learning site.

(5) The result of learning is judged not from the certificate but by the performance of the learners.

(6) It does not aim at organised content, staff and structure. Although it shares facilities with formal system, its efforts are outside the formalised and graded school system.

(7) The learner willingly takes part in the learning programme. It is parttime orowntime educational activities of the learner. The emphasis is not put on instruction but on self learning. The teacher here is not a dictator of learning but a facilitator and the teacher himself learns in the learning process.

(8) Teaching-learning follows a flexible approach based on learner's needs. It is job oriented and work centred skilled based.

(9) Teaching-learning skill aims at maximum learning within the minimum period of students time. A multimedia approach is resorted to hasten the learning process. Printed materials

audio-visual aids, dialogues and discussions, games and community entertainment programmes may, be properly undertaken.

(10) The organizers of the N.F.E. should be vigilant so that learning acquired through N.F.E. does not load the learner's mind with theoretical knowledge and information. But his learning should help him to be practical and to help him in his socio-economic improvement. The learning should be need based and relevant and specific to local needs. The learning programmes should, therefore, be prepared in consultation with the learners and community leaders.

NON-FORMAL EDUCATION IN ORISSA:  
(Policy and implementation)

\* Government of Orissa adopted a policy of introducing Non-formal Education for the unschooled children including the drop outs of the formal schools as a strategy for universalization of elementary education of the age group 6-14. For this a state level committee was appointed. Government formulated policies and schemes in N.F.E., its organization, supervision, curriculum and teachers on the recommendations of this committee.

and started establishment of N.F.E. centres with financial support from central government, N.F.E. for the out of school children of the age group 6-14 was started in 1980. The number of N.F.E. centres at the primary level opened was 800 and N.F.E. centres in the middle level opened was 400, the total numbering 1200 at the initial stage. By 1985 the total no of N.F.E. centres at the primary level has been increased to 6639 and the total no of N.F.E. centres at the Middle level has been increased to 921 both for boys and girls. The total no of N.F.E. centres at present is 7560 in Orissa out of which 740 centres are run under the control of S.C.E.R.T. Orissa. In the year 1980-81 the total number of children enrolled in N.F.E. centres in Orissa was 20,000 and by 1985 it was increased to 1,68,000. In 1980-81 the total number of children enrolled in primary schools was 27,50,000 and in the year 1984-85 it increased to 32,09,000. Out of these students nearly 60% will be drop outs who will be covered in N.F.E. centres. It is estimated that nearly 50.55 lakhs more children will be covered in formal schools and 9.78 lakhs in non-formal centres by 1990 to universalise

The administration and supervision of N.F.E. is under the Directorate of Elementary Education. The Joint Director of Public Instruction, Non-formal education looks into the administration and supervision of N.F.E. From the year 1983-84 supervisors have been appointed at the block level to supervise N.F.E. centres. The Circle District and block level officers of the formal system help the Joint Director in administration and supervision.

The Scheme of N.F.E. was started in Orissa for the age group 6-14 with 5 years of schooling for the primary level and 3 years of schooling for the middle level as in the formal system. The drop outs who belong to the age group 9-14 years would cover the course in three years at the primary level and 2 years at the middle level at their own pace and initiative. It was decided to give these N.F.E. children the same opportunity as their counterparts in the formal system so that they would be useful citizens, and enter formal system with adequate literacy, numeracy knowledge, skills and attitudes equivalent to class V and Class VII students if they so like or may remain content with their

own environment with their need based education

Some general objectives were framed for the curriculum. They are :

1. Fundamental literacy and numeracy.
2. Healthful living.
3. Development of skills and attitude to participate in development activities.
4. Balanced development of emotion and feelings.
5. Development of aesthetic sense.
6. Development of human values.
7. Development of scientific attitude.
8. Development of the sense of self study and self learning.

These were further subdivided into specific behavioural terms and skills related to personal development of learners and citizens of a democratic society.

Taking these general and specific objectives into account 21 books were prepared for the primary and 19 books were prepared for the middle stage. These books relate to six dimensions or areas of the curriculum. (1) literacy (2) numeracy (3) environmental awareness (4) social awareness (5) citizenship (6) personal and community health and hygiene.

Those 5 years of 7 year curriculum has been designed keeping in view the following needs.

1. The need for providing literacy and numeracy, equivalent to class V and class VII levels.
2. The need for giving it a self contained base for life long education.
3. The need for providing opportunity for entry into formal system.
4. The need for providing opportunity for need based and environment specific education.

#### POLICY OF IMPLEMENTATION OF THE N.F.E. CURRICULUM

In order to implement the N.F.E. curriculum the government have taken the following measures.

1. Orientation Training in N.F.E. to every pupil teacher who studies in Teacher Training Institutes.
2. Preparation of instructional materials text books and aids.

The S.C.E.R.T. Orissa has undertaken the work of preparing N.F.E. materials for use in the centres under its control. Some learning materials have been produced.

#### THE EVALUATION OF THE N.F.E. PROGRAMME:

At the initiative of the Ministry of Human Resource Development the National Institute of Educational Planning & Administration and the

National Council of Educational Research and Training have taken up jointly an evaluative study on the progress of non-formal education in nine educationally backward states of India with a view to finding out new ways and means for effective implementation of the scheme and strengthening the scheme of Non-formal Education. The study has two aspects. The first relates to Administrative, financial and physical aspects and the second to the academic aspects.

The design of the Academic aspects has two parts namely (1) Rational analysis of curriculum, instructional material, methods of teaching and Training Programme for teachers and supervisors and pupil evaluation procedure (2) Empirical study aims at ascertaining and evaluating the efficacy of the curriculum and instructional materials.

Teaching learning strategy, monitoring and supervision and achievement of students, will be analysed and evaluated rationally and empirically as well.

This report is an analysis and summarization of findings by a study group consisting of 16 experts of two teams of eight each who conducted a rational analysis of (1) curriculum (2) instructional materials approved by the State government and used in the State (3) Methods of teaching and Training programme of Instructors and supervisors (4) Pupil evaluation procedure for the primary and middle levels. For Rational analysis the Researchers used four tools prepared by N.C.E.R.T. These tools were open ended fact finding pro formas. The agreed opinions of these two teams who met and worked for six days from 23.12.85 to 28.12.85 for Primary and Middle levels have been the basis of this report.

## C H A P T E R - II

### ANALYSIS OF OBJECTIVES AND THE CURRICULUM ON THE BASIS OF TOOL I

#### SUMMARY OF FINDINGS

Government of Orissa, Education and Youth Services Department have produced Primary level curriculum for formal schools for five years which is used in N.F.L. centres of the Primary level in the State. Students of age group 6-14 complete it in 5 years and students of age group 9-14 would complete it in 3 years due to their mental maturity. The syllabus produced for the middle level by the Board of Secondary Education, Orissa for the formal middle schools are covered by the formal Middle Schools in 2 years and non-formal centres in the same two years. The difference is only in the hours of learning. The formal learners devote 5 hours a day to learning, non-formal learners devote 3 hours a day to learning. But the Non-formal learners devote more days to learning than the formal school children for the holidays in the formal schools. In Primary level N.F.L. centres for 5 years the number of days is 1500 and hours of instruction 4500 hours, in

3 years the number of days is 900, and hours of instruction is 2700 hours and in the middle level the number of days in two years is 525 the number of working days in the second year is less than 300. So number of hours of instruction at the Middle level at the N.F.E. centres is 1575 hours.

#### OBJECTIVES OF THE CURRICULUM

##### Primary Level

1. General objectives are started in the curriculum for all subjects.
2. Academic objectives are traceable in subject areas relating to general science, social studies, environmental science and physical education.
3. Social and health hygiene objectives are mentioned.
4. Subjectwise objectives are mentioned in general science, social studies, environmental science, physical education and drawing.

##### Social and Health Hygiene objectives

The number of objectives are represented in the following table.

TABLE -I

Content	Level	Primary	Middle
Social	Family	12	10
	Society	10	8
	National	10	5
Health & Hygiene	Knowledge	8	12
	Skill	6	4
	Attitude	4	-

5. The table I shows that under social objectives 32 objectives were mentioned in all, 12 under

family, 10 under society, 10 under nation.

Under Health & Hygiene objectives there are 18 objectives 8 under knowledge, 6 under skill and 4 under attitude.

6. In subjectivistic approach, objectives of language and mathematics should have been mentioned. The language and mathematics objectives are to be restated in appropriate manner under the heads knowledge skill and attitude.

6. In subjectwise approach, objectives of language and mathematics should have been mentioned. The language and mathematics objectives are to be restricted in appropriate manner under the heads knowledge skill and attitude.
7. In social science and natural science the objectives stated in behavioural changes should be restricted under appropriate heads.
8. There should have been S.U.P.W. objectives in the curriculum.
9. The format of the objectives is not satisfactory. In subjects like language and mathematics the objectives are to be stated under suitable heads in the subject areas. They are to be grouped.
10. The style of the objectives is also not satisfactory. It is suggested that the objectives are to be stated in similar manner in all subject areas in terms of behavioural outcomes under knowledge skill and attitude.
11. As subjectwise curriculum is framed there is no integration of subjects at the primary level.

Objectives of curriculum

MIDDLE LEVEL

1. Objectives of language, general science and social science have been mentioned.
2. There is no mention of S.U.P.W. objectives in the curriculum.

3. The table I shows: Under social objectives there are 23 objectives, 10 under family, 8 under society and 5 under nation.
4. Under Health and Hygiene objectives there are 16 objectives out of which 12 are under knowledge, and 4 are under skill.
5. More objectives should have been included under knowledge, understanding, skill, application and attitude.
6. In natural science the objectives have been clubbed together under understanding. They should be categorised.
7. In social science objectives have been stated but not categorised.
8. In Mathematics and English the objectives have been stated.
9. The format of the objectives was not satisfactory. The objectives should have been listed in tabular form under suitable heads under behavioural outcomes.
10. The style of the objectives is not satisfactory. The objectives should have been given in terms of skills and behavioural outcomes.
11. There is no integration of subjects at the middle level for the non-formal learners.

INSTRUCTIONAL MATERIALS

The following table indicates the number of topics and themes covered by the formal curriculum used in non-formal centres in Orissa.

TABLE -II

Subjects	Primary level		Middle level	
	N. of topics	N. of themes	No. of topics	No. of themes
Language	132	81	75	38
Nat. science	339	22	113	35
Social science	162	25	211	73
Mathematics	96	34	127	30

The perusal of the table indicates that within the time available quite a good number of coverage has been made to include themes and topics commensurate with the requirements of Non-formal Education. The number of themes and topics included in primary and middle levels is very impressive. The curriculum does not mention the time to be devoted to teaching learning in different subjects. But these topics and themes in different subjects can be covered in time.

There are 21 textbooks at the primary level and 19 at the middle level. All these are written according to the themes and topics suggested in the curriculum.

#### METHODS OF TEACHING:

In the curriculum no instructional methods are mentioned but learning by doing drill, question-answer, story-telling, dramatisation, demonstration, observation and playway methods are glanced from the subject areas.

#### PUPIL EVALUATION:

The curriculum does not mention of evaluation procedure. But evaluation is done according to the orders of the government and article 407 of the Orissa Education Code. The tools of evaluation are teacher made tests, oral and written tests, exercises at the end of lesson and at the end of each unit. The frequency of evaluation takes place at the teaching learning time and at the end of a unit, quarterly, half yearly, yearly and at the end of a stage.

At the middle level evaluation is done according to the regulation of the Board of Secondary Education, Orissa and directives of the State Government.

The tools of evaluation are teacher made oral and written tests, exercises at the end of lessons, home tasks and techniques of evaluation and written work. The frequency of evaluation are quarterly, half yearly, yearly at the end of a stage, at the end of a unit at the time of teaching and learning.

#### GENERAL IMPRESSIONS

1. The analysis reveals that the curriculum should have mentioned all the objectives of different subjects under knowledge, skill and attitude with their behavioural outcomes.
2. The curriculum contains adequate themes and topics to cover all the content areas of different subjects to suit both the formal and non-formal learners. But they would have been integrated to suit to non-formal learners. Some books should have been presented in modular form for the benefit of the N.F.E. learners.
3. The curriculum should help the child to be a life long learner, self reliant worker, and a

useful citizen. The present curriculum does not emphasize on these aspects of learner's needs.

4. The needs of different localities, like hilly tribal and weaker sections of the community should have been better represented in the curriculum to make it useful to non-formal learners.

5. The curriculum should have focused more on living a rewarding personal life, useful citizenship and productive work, than on learning from books.

6. The curriculum should have been flexible but not rigid to suit N.F.E. learners.

7. The curriculum should have contained sufficient elements for formation of healthy attitude and development of scientific mind.

8. Personal and community health problems, social problems and community development, customs and manners and social injustice should have been presented in a better manner in the curriculum for the benefit of N.F.E. learners.

9. The curriculum should have contained more elements to develop human values like tolerance, respect for others, dignity of labour, truth, social justice, sympathy and cooperation.

10. S.U.P.W. should have been included in the curriculum to suit to non-formal learners.

11. The methods of teaching both for organizational and instructional purposes should have been mentioned in the curriculum.
12. The objectives of evaluation should have been properly stated in the curriculum. Different tools techniques and frequency of evaluation should have been mentioned to make evaluation helpful to learning. A proper curriculum for the state of Orissa both for the Primary level and Middle level for formal and non-formal education is essentially necessary.



CHAPTER - IIIANALYSIS OF THE INSTRUCTIONAL MATERIAL  
(on the basis of to 12)SUMMARY OF FINDINGSINTRODUCTION

The Government of Orissa have approved 21 instructional materials for the primary level N.F.B. centres and 19 instructional materials for Middle level N.F.M. centres. These instructional materials are also used in the formal schools. These are prepared to teach literacy, numeracy, environmental awareness, social awareness and healthful living. As Orissa is full of hilly areas populated by hill tribes and backward people in many parts of the State their ways of living have been taken into consideration at the time of framing the learning materials. These learning materials for primary and middle levels were given for analysis to the teams of Researchers at the Primary level.

The list of books approved by the Govt.  
of Orissa for use in the N. F. L. centres of Orissa  
is given below.

PRIMARY LEVEL

Language Books

Sl.N.	Subject Books	Used in classes of formal system
1.	{ Book 1 or B1}	Chhabibabhi Part I Class I
2.	{ Book 2 or B2}	Chhabibabhi Part II Class I
3.	{ Book 3 or B3}	Mopathababhi Class II
4.	{ Book 4 or B4}	Nuopathababhi Class II
5.	{ Book 5 or B5}	Sahitya Class III
6.	{ Book 6 or B6}	Sahitya Class IV
7.	{ Book 7 or B7}	Sahitya Class V
8.	{ Book 8 or B8}	Thik Lekha 0 Class IV + V Thik Padho

Natural Science books

9.	(Book 1 B1)	Ama Bigyana Patha	Class III
10.	(Book 2 B2)	Ama Bigyana Patha	Class IV
11.	(Book 3 B3)	Ama Bigyana Patha	Class V

Social science books

12.	(Book 1 B1)	Ama Samajika Patha	Class III
13.	(Book 2 B2)	Samajika Patha	Class IV
14.	(Book 3 B3)	Samajika Patha	Class V

Mathematics Books

15. (Book 1 B1) Ankabahi	Class III
16. (Book 2 B2) Anka ba hi	Class IV
17. (Book 3 B3) Ankabahi	Class V
18. (Book 4 B4) Ankabahi	Class II
19. (Book 5 B5) Mo Ankabahi	Class I

My other English

20. (Book 1 B1) My English Reader	Class IV
21. (Book 2 B2) My English Reader	Class V

MIDDLE LEVEL

Language books

1. (Book 1 B1) Sahitya	Class VI
2. (Book 2 B2) Odiya Byakarana	Class VI
3. (Book 3 B3) Sahitya	Class VII
4. (Book 4 B4) Odiya Byakarana	Class VII

Natural Science books

5. (Book 1 B1) Sadharana Bigyan	Class VI
6. (Book 2 B2) Sadharana Bigyan	Class VII

Social Science Books

7. (Book 1 B1) Itihasa O Nagar Bigya na	Class VI
8. (Book 2 B2) Bhugola	Class VI
9. (Book 3 B3) Itihasa O Nagar Bigya na	Class VII
10. (Book 4 B4) Bhugola	Class VII

Mathematics Books

11. (Book 1 B 1) Ankabahi	Class VI
12. (Book 2 B2) Anka bahi	Class VII
13. (Book 3 B 3) Jya miti Paricha ya	Class VI
14. (Book 4 B 4) Jyamiti Paricharya	Class VII

Any other English books

15. (Book 1 B1) My English Reader	Class VI
16. (Book 2 B2) My English Reader	Class VII

Supplementary Readers

1. (Book 1 B1) Badalokanta Jibana Katha	Class VI
2. (Book 2 B 2) Maha purusa	Class VI
3. (Book 3 B 3) Ten Stories (English)	Class VII

PEDAGOGICAL ANALYSIS

Number of approved books being used in the N.F.E. Centres at the Primary and Middle levels is detailed below :

	<u>Primary level</u>	<u>Middle level</u>
1. Language	8	4
2. Natural Science	3	2
3. Social Science	3	4
4. Mathematics	5	4
5. English	2	2
	<hr/>	<hr/>
Total	21	16
Supplementary Readers	-	3
<hr/>		
Total	21	19

### CONTENT ANALYSIS OF TEXTBOOKS AT THE PRIMARY LEVEL

1. No textbooks is written according to integrated plan.
2. In the subjectwise curriculum the following topics have been included.

#### LANGUAGE

8 language books approved by the Government of Orissa are in use at N.F.E. centres of Orissa at the Primary level.

#### Content

The coverage of themes and topics in different textbooks is detailed below.

1. In Chhabibahi Part I which is the first book to which the student is exposed in the N.F.E. the following themes/topics have been covered.

Alphabet, Matra, sentence construction, punctuation, development of reading and writing skill, lives of greatmen.

2. In Chhabibahi Part II which is the second book to which the student is exposed in the N.F.E. the following themes/ topics have been included.

Alphabet, Matra, sentence construction, joint letters, punctuation, development of reading and writing skill, city and village life, lives of

greatmen, means of entertainment. Fund and recreation, Biographies, composition, syntax, Idioms.

3. In Mapathabahi which is the third book for N.F.E. learners the following themes/topics are covered.

Sentence construction, joint letters, composition, punctuation, development of reading and writing skill, city and village life, lives of greatmen, some easy scientific topics, means of entertainment, desirable human values, nature and natural environment, courage bravery and adventure, mythology and religion, tales, biographies, health and hygiene.

4. In Nunpathabahi which is the 4th book for N.F.E. learners the following themes/topics are covered.

Sentence construction, joint letters, composition, punctuation, development of reading and writing skill, city and village life, our country The flora and fauna of India and other countries, lives of greatmen, Means of communication, good manners and etiquette, desirable human values, home, school and neighbour hood, nature and natural environment, courage bravery and adventure, Tales Biographies, Health and Hygiene, composition, word formation, syntax.

5. In Sahitya which is the 5th book to which the N.F.E. learner is exposed the following themes/topics have been covered.

Sentence construction, composition, punctuation, development of reading and writing skill, our country, the flora and fauna of India and other countries, The life of children in different parts of India and in other countries, lives of greatmen some easy scientific topics, good manners and etiquettes, desirable human values, home, school and neighbourhood, Birds and animals nature and natural environment, fun and recreation courage bravery and adventure, Tales, Biographies.

6. In Sahitya which is the 6th book to which the N.F.E. learners are exposed the following themes and topics have been covered.

Sentence construction, composition, punctuation development of reading and writing, our country, The flora and fauna of India and other countries. The life of children in different parts of India and other countries, lives of greatmen, some easy scientific topics, games and sports, desirable human values, home, school and neighbourhood, Birds and animals, Nature and natural environment, courage bravery and adventure, Biographies, our universe.

7. In Sahitya which is the 7th book to which the N.F.E. learner is exposed the following themes/topics have been covered.

Sentence construction, composition, punctuation, development of reading and writing skill, the flora and fauna of India and other countries, lives of greatmen, some easy scientific topics, Games and sports, desirable human values, birds and animals, nature and natural environment, courage bravery and adventure, Biographies, our universe, clothing.

8. In Thik Likho O Thik Padho the eighth book to which the N.F.E. learner is exposed the following themes/topics have been covered.

Alphabet, Maitra, sentences construction, composition, punctuation, development of reading and writing skill, lives of greatmen, tales.

## II NATURAL SCIENCE

1 In Ani Bigya na Path which is the first book of natural science for N.F.E. learner, the following themes/topics have been covered.

Birds and animals, Nature and natural environment, Health and Hygiene, our universe, Day night, solar and lunar eclipses, plants, air water and weather, force work energy and

machine, matter, home, living and non-living things, vegetation and its kind, animal kingdom, human physiology.

2. In Ama Bigyan Path which is the second book of Natural Science for N.F.E. learner the following themes/topics have been covered.

Health and Hygiene, our universe, air, water and weather, rocks and minerals, force, work, energy and machine, various sources of energy, formation of soil and its conservation, matter, clothing, living and non-living things, vegetation and its kind, animal kingdom, human physiology.

3. In Ama Bigyan Path which is the third book of Natural Science for N.F.E. learner the following themes/topics have been covered.

Health and Hygiene, our universe, day, night, solar and lunar eclipse, planets, air, water and weather, rocks and minerals, force, work, energy and machine, various sources of energy, matter, clothing, living and non-living things, animal kingdom, human physiology.

### III. SOCIAL SCIENCE

1. In Ama Samajika Patha which is the first book of social science for N.F.E. learners the following themes and topics have been covered.

City and village life, lives of greatmen, some easy scientific topics, means of entertainment, home school and neighbourhood, fun and recreation, mythology and religion, tales.

2. In Samajika Patha which is the second book of social science for N.F.E. learner the following themes/topics have been covered.

Our country, lives of greatmen, found and recreation our universe.

3. In Samajika Patha which is the 3rd book of social science for N.F.E. learner the following themes/topics have been covered.

Our country, lives of greatmen, fun and recreation, Biographies, our universe.

### IV. MATHEMATICS

1. In Ankaabahi which is the first book of Mathematics for N.F.E. learner the following themes/topics have been covered.

Number and place values, addition, subtraction, multiplication, division, measurement, time, length, weight, volume, geometrical figures, metric system measures.

2. In Ankabahi which is the second book of Mathematics for N.F.E. learner the following themes/topics have been covered.

Distance, direction and time, number and place value, addition, subtraction, multiplication, division, measurement time, length, weight, volume, geometrical figures, fractions, simple unitary method, metric system measures, accounts, calendar reading.

3. In Ankabahi which is the third book of Mathematics for N.F.E. learner the following themes/topics have been included.

Number and place value, addition, subtraction, multiplication, division, measurement, time, length, weight, volume, geometrical figures, L.C.M/H.C.F., fractions, metric system measures.

4. In Ankabahi which is the fourth book for N.F.E. learners the following themes/topics have been covered.

Number and place value, addition, subtraction, multiplication, division, coins.

5. In M. Ankabahi the fifth Mathematics book used by the N.F.E. learners at the beginning stage the following themes and topics are covered.

Number and place value, addition, subtraction, multiplication, division, coins.

V. ANY OTHER ENGLISH

1. In My English Reader Book I which is the first book of English for N.F.E. learners the following themes/topics have been included.

Alphabet, sentence construction, punctuation, development of reading and writing skill, good manners and 'quotto.

2. In My English Reader Book II which is the second book for N.F.E. learners the following themes/topics have been included.

Sentence construction, punctuation, development of reading and writing skill, good manners and 'quotto, tables.

CONTENT ANALYSIS OF TEXTBOOKS AT THE MIDDLE LEVEL

N- text books has been written according to integrated plan.

In subjectwise curriculum the following topics have been included.

I LANGUAGE

4 language books approved by the Government of Orissa are in use at N.F.E. centres of Orissa. There are two supplementary readers which are also in use at the Middle level centres in Orissa.

CONTENT

The coverage of themes and topics in different textbooks is detailed below.

1. In the book 'Sahitya' which is the first book of language used in N.F.E. centres for the first year of the two year programme at the middle level, the following themes/topics are included.

Our heritage, lives of greatmen, some easy scientific topics, desirable human values, mythology and religion, history and religion, patriotism and national integration, medium of exchange.

2. In the book 3 Sahitya for the second year of the Middle level the following themes and topics have been included. Our country, flora and fauna of India and other countries, lives of greatmen, some easy scientific topics, games and

spirts, good manners and etiquettes, desirable human values, history and religion, patriotism and national integration.

Book 3 and book 4 for Middle level cover grammatical topics. The two supplementary readers cover topics on biographies and stories.

### II NATURAL SCIENCE

1. In 'Sadharaṇa Bīgyāṇa' the first book on natural science for the first year of the Middle level the following themes/topics are covered.

Measurement and units of measure, matter and their properties, force, work and energy, common materials, living beings, cells and biological actions, cells and metabolic functions, growth reproduction and adoption, light, electricity, chemistry-chemical reactions, acid base and salt. Human body and its various functions, food and health, interdependence of plants and animals.

2. In Sadharaṇa Bīgyāṇ the second book meant for the second year the following topics are read :-

Force, work and energy, heat, sound, common materials, light, magnetism, electricity, chemistry, chemical reactions, acid base and salt. Human body and its various functions.

### III. SOCIAL SCIENCE

1. In Itihasa O Nagar Bigyan the first book on social science for the first year of the middle level the following themes/topics are covered.

Indian History from Prehistoric period to Gupta period, Man and citizen, healthy civic life, Government of various levels, administrative system in India.

2. In Bhugola the second book on social science for the first year of the middle level the following themes/topics have been included.

City and village life, Atmosphere, Asia and Africa.

3. In Itihasa O Nagar Bigyan the third book on social science for the second year of the middle level the following topics have been included.

Sultanate period, Moghula period, Surjya dynasty, middle age, Ganga dynasty.

4. In Bhugola the fourth book on social science for the second year of the Middle level the following themes/topics are covered. City and village life, flora and fauna of India and other countries, map study and applied geography of Orissa, Atmosphere.

VI MATHEMATICS

1. In Ankaabahi the first Mathematics book for the first year of the Middle level the following themes/topics are covered.

Real numbers, whole numbers, rational numbers, ratio, area, volume, rudiments of Algebra.

2. In Ankaabahi the second Mathematics book for the second year of the Middle level the following themes/topics are covered.

Area and volume, rudiments of Algebra, geometry, polygons, similarity in geometrical figures, surface area, volume of solids.

3. In Jyamiti Parichaya the third book on Mathematics used for the first year of the Middle level the following themes/topics are covered.

Area and volume, geometrical constructions, symmetry, measurement and units of measures.

4. In Jyamiti Parichaya the fourth book on Mathematics used for the second year of the Middle level the following themes/topics are covered.

Geometrical constructions, measurement and units of measure.

V. ENGLISH

1. In 'My English Reader' the first book in English for the first year of the Middle level the following topics have been covered.

City and village life, lives of greatmen, Good manners and etiquettes, tales.

2. In 'My English Reader' the second book for the second year the following themes/topics are covered.

City and village life, lives of greatmen, Good manners and etiquettes, tales, food and health.

There is a supplementary reader in English for the middle level which cover the following : themes and topics.

Tales.

COMMENTS ON CONTENT ANALYSIS OF LANGUAGE BOOKS

i) Content analysis point out the following.

A variety of topics relating to life in the village and town, of children in India and abroad, of Natural phenomena and human values have been

covered in the language books as motivating materials for language skills. They have been graded to some extent to suit the needs of the learners.

ii) Attempts have been made to impart some knowledge of physical and social environment and to develop awareness about problems relating to environment.

iii) Themes relating to social and economical aspects of life, scientific topics, natural phenomena, habits, attitudes have been included in the language books.

iv) Although the approach is not completely centred round life in content the themes would motivate the children to develop language skill.

v) The lessons in the language books would keep the learners to develop functional linguistic skill.

vi) Out of the four aspects of language skill namely listening, speaking, readings and writing the last two aspects have been taken more care of them the first two in the language books.

There are some exercises at the end of language lessons. But they are not varied.

Short answer and objective type questions are not adequate.

These comments are applicable more or less to the contents of both primary and middle level language books.

#### COMMENTS ON MATHEMATICS BOOKS

The themes included in Mathematics books would provide basic experience in functional Arithmetic. They would help children in number work.

But simple problems in the Arithmetic books are not very much related to life situations.

In the middle stage percentage, decimals, ratio, proportions have been dealt for the benefit of the learners. But they are very theoretical.

At the middle stage some stress has been given to geometrical construction and practical work. But they are not related to life.



objectives to a great extent while the natural science and mathematics book cover partly the sociological objectives.

All the language books at the middle level cover. Sociological objectives to a great extent. The social science books, natural science books mathematics books cover sociological objectives partly in the middle stage.

Conceptual approach has been adopted in language B5, B6 and B7 all the social science books and natural science books and mathematics books B1, B2, and B3.

Conceptual approach has been adopted in the language B1 and language B3 in all the books of social science, mathematics and natural science at the middle level.

#### ENVIRONMENT SPECIFIC INSTRUCTIONAL MATERIALS

The analysis shows that physical and social aspects of urban life have been represented in natural science, social science and mathematics books at the primary level.

Physical and social aspects of tribal life are depicted in social science books and social aspect of tribal life has been represented in language B7.

Physical and social aspects of rural life have been covered in natural science, social science and mathematics books. Physical and social aspects of hilly life have been represented in all social science books and physical side of hilly life is represented in language LG.

Physical aspect of coastal life is represented in language B5 and B7.

Physical aspects of coastal life is depicted in all social science books.

Physical aspect of desert life has been represented in language book 5, social science B2, B3 and social aspect of desert life has been depicted in social science B2.

At the middle level physical and social aspects of urban life are represented in natural science, social science and mathematics books. Language B3 cover social aspect of urban life and English B1 and B2 cover physical aspect of urban life.

Physical and social aspects of rural life are depicted in all natural science, social science and mathematics books social aspects of rural life have been represented in B1 and B3 of language books.

Physical aspect of hilly life has been covered in language B1. English B2. Physical and social aspects of hilly life have been covered by all social science books.

Physical side of coastal life is represented in language book 1 and 3. Physical and social aspects of coastal life have been depicted in all the social science books.

Physical and social aspects of desert life have been covered in social science B2 and B4.

So some aspects of rural, urban, hilly, coastal and desert life have been represented in some of the books for primary and middle level.

#### LINGUISTIC ANALYSIS

The number of teachable words given in 8 Oriya language books varies from 62 to 138. The teachable words in two English books are 204 and 254. The sentences of language B1 to B4 and English B1 B2 are small in length and simple in construction and they facilitate communication. The sentences of language B5 are average in length and simple in construction facilitating communication easily. The sentences of English B1 and B2 are small in length and simple in construction. The sentences of all language

The communicability of language in social science books is average and in mathematics and natural science books poor.

Exposure to appropriate vocabulary has been adequate in all language books, social science books, and English books whereas it is inadequate in mathematics and social science books.

#### At the middle level

The number of teachable words in B1 to B4 of language books varies from 70 to 102 and the number of teachable words in English B1 is 234 and English B2 is 258.

The sentences of Oriya language B2 and B4 and English B1 and B2 are average in length and simple in construction. They facilitate communication. The sentences of Oriya language B1 and B3 very lengthy and complex in construction. They do not easily facilitate communication.

The communicability of language in social science books is average and natural science books and mathematics books poor.

In all language books, social science books and English books exposure to appropriate vocabulary has been adequate and in natural science

#### SUPPLEMENTARY READERS

There is no supplementary reader at the primary level for the N.F.E. learners.

There are three supplementary readers at the middle level two in Oriya language and one in English. They relate to biographics and tales. There are some appropriate illustrations in these supplementary readers.

The number of themes and subject areas are not adequate in these supplementary readers.

Dramas, dialogues and more stories should be included in the supplementary readers.

#### PSYCHOLOGICAL ANALYSIS

The psychological analysis of the textbooks at primary level reveal the following.

The coverage of social needs is adequate in all the social science books of the primary level.

The coverage of social needs is inadequate in all language, and natural science books.

The coverage of personal needs is inadequate in all books of all subjects at the primary level.

At the middle level only in social science books the social needs are adequately covered. In all other books of other subjects the social

needs are in adequately covered. The personal needs of children are inadequately covered in all the books of all subjects.

PHYSICAL ANALYSIS

1) The size of printing is appropriate in the case of all language books, social science books and English books. It is inappropriate in case of mathematics books and natural science books at the primary level.

The size of printing is appropriate in all the language books and social science books. It is inappropriate in the books of all other subjects at the middle level.

2) The following table shows number of pages and size of books at the Primary level.

subject 1	Book 2	No. of page 3	Size 4
Language	1	54	A4
	2	30	A4
	3	46	A4
	4	56	A4
	5	98	Demy 20cmx14cm
	6	126	do
	7	126	do
	8	70	do

1	2	3	4
English	1	98	A4
	2	91	A4
Natural science	1	96	A4
	2	74	A4
	3	76	A4
Social Science	1	70	A4
	2	60	A4
	3	78	A4
Mathematics	1	134	A4
	2	110	A4
	3	168	A4
	4	86	Demy 20cmx14cm
	5	64	do

The following table shows the number of pages and size of books at the middle level.

Language	1	140	Demy 20cmx14cm
	2	106	do
	3	123	do
	4	52	do
English	1	148	do
	2	148	do
Natural science	1	160	do
	2	173	do

1	2	3	4
Social science	1	140	Demy 26cmx14cm
	2	140	do
	3	142	do
	4	190	do
Mathematics	1	208	do
	2	151	do
	3	99	do
	4	76	do

### 3. Illustrations

Illustrations are close to the environment of the children. They are relevant to themes in all the books. But there illustrations are not adequate in the books of the primary level.

Illustrations pertain to urban life, rural life, tribal life, and coastal life. There are some illustrations of desert life in social science B2 and B3.

At the middle level the illustrations are close to the environment of the children. They are adequate and relevant to themes in all the books of the middle level.

These illustrations pertain to urban life, rural life, tribal life, and coastal life.

There are a few illustration relating to desert life in language B1 and social science B1, B2, and B3.

COMMENTS BY WAY OF SUMMARIZATION

Topics of general interest, problems of life and physical and social environment have been generally incorporated in all the language books.

Urban, rural, hilly and coastal lives have been portrayed in the language books.

Although the approach is not completely life centered these themes would motivate the children to develop language skill at primary and middle level.

The themes would have been integrated to suit N.F.E. learners. The language books at primary and middle level would help as a sound base for acquiring literacy. The themes of natural science books would develop interest of children for natural science. The natural science books do not contain good exercises.

The themes in social science books develop social sense. The social science books help developing citizenship.

The themes in mathematics books would provide basic experience in functional numeracy. Mathematics books should have been written giving emphasis on day to day experience of life. Sociological objectives have been adequately covered in social science and language books. Other books cover it partly.

There are not many illustrations in the books, but some of the illustrations are good. The printing of mathematics and natural science books need improvement.

All the books should have been written in an approach of self learning. They should have been written with an integrated approach to suit N.F.E. learners. However, these textbooks would help N.F.E. learners and formal learners to acquire literacy, numeracy environmental awareness and social awareness to have the way for universalization of elementary education.

## C H A P T E R - IV

### ANALYSIS OF METHODS OF TEACHING AND TRAINING PROGRAMME

#### SUMMARY OF FINDINGS

An analysis of findings by applying tool 3 brings to light the following -

The following materials are available for use in the N.F.E. centres of the State of Orissa.

The following materials are available for use at the Primary level centres.

- (1) The curriculum (2) 8 language books
- (3) 3 natural science books (4) 3 social science books
- (5) 5 Mathematics books (6) Mathematics books
- (6) Teacher's Training syllabus.

There is no separate curriculum at the Primary level for N.F.E. learners. The curriculum (syllabus) for the formal schools are used in non-formal centres. The formal textbooks of the Primary level are also used at the non-formal centres. There is no teachers guide and teachers handbook for the primary level in Orissa.



The S.C.E.R.T. Orissa has developed N.F.E. curriculum, training manual, teachers' guide and teachers' hand book for non-formal centres under its jurisdiction. These are not used in non-formal centres at the state level.

The methods of teaching are not clearly mentioned in the curriculum and text books. However, in the formal syllabus and text books used in N.F.E. primary level centres drill, story telling, demonstration, observation, discovery, discussion question answer, dialogue, self learn dramatization, playway methods are indicated. There is provision for Radio and T.V. programme.

The following materials used in formal schools are in use at the middle level non-formal centres.

- (1) The curriculum (2) 4 language books
- (3) 2 natural science books (4) 4 social science books
- (5) 4 Mathematics books (6) two English books
- (7) Teacher's Training syllabus.

There is no teachers guide or teachers hand book at the middle level in Orissa.

The S.C.E.R.T. has not developed any material for the middle level for Orissa.

In the syllabus and textbooks of the formal system in use at the middle level.

Drill, story telling, narration and discussion, demonstration, observation, discovery, dramatization, dialogue, learning by doing, self learning, playway methods and question answer methods are indicated.

#### METHODS OF TEACHING IN DIFFERENT SUB AREAS

It will be useful to analyse the break up of subjectwise methods of teaching indicated.

It will help in understanding the emphasis placed on different methods for learning different subjects.

##### (A) LANGUAGE

At the primary level in the curriculum and language books drill, story telling, question answer, dialogue, observation, dramatization have been indicated as methods of teaching to achieve linguistic objectives.

At the middle level self learning as a method of teaching is indicated besides the methods mentioned at the primary level.

Drill as a method of teaching is indicated mostly in language B1, B2, B3, B8 and English B1, and B2 at the primary level.

Story telling, dialouge, question answer, observation and dramatization are indicated in B2, B3, B4, B5, B6, B7 and English B2.

At the middle level all these methods are indicated in the language books besides self learning method.

(B) NATURAL SCIENCE

Story telling, question answer, demonstration, learning by doing as methods of teaching are indicated in the curriculum and natural science B1, B2, B3 at the primary level.

At the middle level story telling, question answer, drill, demonstration, observation, discovery, discussion and self learning are indicated as methods of learning in the curriculum and natural science B1, B2, B3, B4.

(C) SOCIAL SCIENCE

At the primary level story telling, question answer, dramatization, discussion and self learning are suggested as methods of teaching social science. In social science B1, B2, B3 all these methods are indicated.

At the middle level story telling, question answer, drill, demonstration, observation, discussion, self learning are suggested as methods of teaching social science.

In social science B1, dramatization, story telling, question answer, discussion are indicated as methods of teaching. In social science B3 question answer, drill, discussion, self-learning are indicated as methods of teaching.

In social science B2, question answer, drill, demonstration, observation and discussion are indicated as methods of teaching.

In social science B4 question answer, demonstration, observation, discussion and self learning are indicated as methods of teaching social science.

(D) MATHEMATICS

Story telling question answer, drill, learning by doing are suggested as methods of teaching mathematics at the primary stage.

In Arithmetic B5 and B4 used by beginners story telling and drill are suggested as methods of teaching. In Arithmetic B1, B2, B3 question answer, drill and learning by doing are suggested as methods of teaching mathematics at the primary level.

At the middle level question answer, drill, demonstration learning by doing and play way are suggested as methods of teaching Mathematics.

In Mathematics B1 and B2 question answer, drill, learning by doing and playway are suggested as methods of teaching and in B3 and B4 question answer drill, demonstration and learning by doing are suggested as methods of teaching Mathematics.

Radio and Television are used as media of instruction in all subjects both at primary and middle level.

There is no provision of S.U.P.W. for N.F.E. learners in Orissa. So no method of teaching for S.U.P.W. is suggested in the curriculum.

The methods suggested in the curriculum and textbooks partly help the clientele in their learning. More dynamic methods of teaching learning should be adopted to facilitate the learning of the clientele.

#### THE TRAINING PROGRAMME

It is obvious that the training of instructors, supervisors and other functionaries connected with N.F.E. programme is of utmost importance for the success of N.F.E. programme. The curriculum and the training manual should clearly mention about the training of the teachers and supervisory staff. But in Orissa the curriculum used in non-formal centres donot mention about the training programme.

There is also no training manual to indicate the training programme. However, the syllabus for teachers training issued by the Board of Secondary Education, Orissa in 1982 for two years mentions the type of training the pupil teachers should get in training schools of Orissa in connection with non-formal education. According to government circular these trained persons are eligible to be appointed as teachers in the non-formal centres of the State. The S.C.E.R.T. Orissa has developed training manual which is used in non-formal centres under the control of the S.C.E.R.T. but not in majority of non-formal centres of the State.

The role of the teacher identified by the group are:

- i) Preparing children for multiple entry into the formal system.
- ii) Finding out defects in the learning of students and imparting remedial teaching.
- iii) Preparing local relevant learning materials.
- iv) Use of learning resources.
- v) Motivating children to learn.
- vi) To establish communication with parents of the school children.

: 8 :

- vii) Conducting evaluation of children's achievement
- viii) Discussion with community leader for the improvement of the non-formal education centres and community development.
- ix) To prepare list of unschooled and drop-out children in the locality and to admit them to non-formal centres.

To cater to the needs of the teachers the training programme consisting of theory and practical work is designed for the benefit of the teachers and supervisors.

#### CONTENT OF AREA OF TRAINING PROGRAMME

The component of non-formal education training programme for 130 hours prescribed in the teachers' training syllabus for 2 years is detailed below.

They include in shape of lectures, theoretical and practical work to cover literacy, numeracy, environmental awareness, social awareness, S.U.P.W. and health hygiene.

#### THEORETICAL WORK:

- i) National policy on education.
- ii) Comprehensive approach to primary education with non-formal approach.
- iii) Education for productivity and S.U.P.W.

Total time - 10 hours.

### PRACTICAL WORK

#### a) Activities

- i) Preparation of learning materials.
- ii) Delivery of lessons based on these learning materials.
- iii) Management of N.F.E. centres.

Total time - 80 hours.

#### Field work

Spot visit of N.F.E. centres.

Spot visit of areas where N.F.E. centres are located to study community problems.

Total time - 10 hours.

#### Demonstration

Demonstration and criticism lessons

Total time - 10 hours.

#### Maintenance of records

- i) Maintenance of accounts.
- ii) Maintenance of attendance registers.
- iii) Maintenance of evaluation records.
- iv) Maintenance of cumulative records.

Total time - 20 hours.

Criteria for selection of teachers

According to departmental circular the teacher/instructors/facilitators of N.F.E. are selected by a Selection Committee consisting of the District Inspector of Schools of the District as Chairman, the senior Sub-Inspector under the District Inspector of Schools and the Headmasters of the neighbouring Teachers' Training school.

The criteria for selection of teachers are:

- i) Lady candidates.
- ii) Retired teachers.
- iii) Local candidates.
- iv) Trained teachers.
- v) Fresh Matriculates when trained teachers are not available.
- vi) Under Matriculates in backward areas where trained teachers and Matriculates are not available.

The group recommended that there should be a training manual for training of teachers in the teaching learning process.

In regard to training programme for supervisors the following particulars are brought to notice.

The training programme for the supervisors is the same as the training programme for the teachers consisting of 150 hours of theoretical and practical work during 2 years training to pupil teachers in Secondary Training Schools as envisaged in the Teachers' Training syllabus 1983 prepared by the Board of Secondary Education, Orissa.

#### Role of Supervisors

There is no training manual to state the task of supervisors. But according to Govt. Directives the role of supervisors are:

- i) To supervise N.F.E. centres.
- ii) To check up the progress of teaching work in the N.F.E. centres.
- iii) To see how the records like attendance registers, stock register, and other records, are maintained.
- iv) To look into the Management of the centres.
- v) To enlist community cooperation.
- vi) To organise orientation courses to give guidance to N.F.E. teachers.
- vii) To deliver model lessons.
- viii) To find out the need of the centre and to suggest ways and means to fulfil them.

ix) To help in the evaluation work at the N.F.E. centres.

Criteria for selection of block level supervisors

Block level supervisors are selected according to Government circulars.

i) The supervisors are selected from among the trained Intermediate candidates.

They are selected by the District Selection Committee consisting of the Inspector of schools as the Chairman with the District Inspectors of Schools of the District, the District Development Officer and District Welfare Officer as members. For each block a supervisor is appointed. The scheme has been operative since 1983.

The Inspector of Schools, the District Inspector of Schools, Deputy Inspector of Schools and Sub-Inspector of Schools of the formal system also supervise N.F.E. centres. They have very little training for supervising N.F.E. centres.

The group is not satisfied with the training programme for the teachers and supervisors. It recommended that there should be both preservice and inservice training of teachers and supervisors and the training be enriched by sufficient practical work relevant educational training.

The teachers and supervisors should be trained to cater to the needs of children of differnt abilities and attainment and pace of learning. They should have due practical training to deal with non-formal learners, their needs, motivation, habit formation and learning of social values. For these longer duration of training with N.F.E. approach is needed to make teaching learning very pleasant and effective.

Recently a training programme for ten days consisting of theory and practical work has been designed by the State Govt. to tra in the teachers of the N.F.E. centres.

Concluding remarks

- 1) A good curriculum for Orissa for N.F.E. learners is a crying need. The curriculum should high light some of the significant and effective methods of teaching and learning in different subject areas.
- 2) Teachers handbooks, teachers' guides should be prepared for teaching the teachers practical methodology based on different learning modes and diversified environmental and learning situations.

3) There should be a training manual for teachers supervisors and other functionaries of supervision to provide intensive training to acquire the needed competencies expected of them.

A proper machinery be evolved to prepare all the above materials to guide teachers in the teaching learning situations and to train them to perform their job properly.

Training institutions for N.F.E. teachers and supervisors be opened and N.F.E. centres be attached to them for providing good grounding in practical work.



## CHAPTER V

### ANALYSIS OF EVALUATION PROCEDURE

(On the basis of tool 4)

#### A SUMMARY OF FINDINGS

##### Nature of pupil evaluation at the primary level

Rational analysis of curriculum and government circulars and article 407 of the Orissa Education Code reveals the following.

##### A NATURE OF EVALUATION

The curriculum indicates evaluation. The Government circulars and article 407 of the Orissa Education Code provides for evaluation of learners attachment with the following purpose in view.

i) For certification at the end of a stage.

As it takes place at the end of the primary level stage it is called summative evaluation.

ii) For helping the child to learn. For this formative type of evaluation is conducted, quarterly at the end of a unit and at the time of teaching and learning situation.

iii) For improving the quality of teaching. For this purpose diagnostic evaluation is undertaken at the end of each unit.

iv) For multiple point of entry, for this purpose both formative and summative types of evaluation are undertaken.

B) Agency frequency and nature of tools of evaluation at the primary level.

i) Assessment is generally done internally at the primary stage. The teacher or instructor is responsible for this evaluation. However, the supervisor assesses the attainment of learners at the time of his visit. Previously there was external examination by the District Inspector of Schools at the end of the primary level but now this system of external examination has been abandoned.

2) The suggested tools are :

Oral and written tests, observation tests, and pupil assignment, dictation and calculation.

3) Frequency of tests are indicated below.

Tests are conducted quarterly, at the time of teaching and learning and at the end of the unit and at the end of the programme.

4) From the analysis of the responses to item no. 3(a) of tool 4 the following points are deducted:

a) In literacy the tools used are -

Teacher made reading test, teacher made writing test, externally prepared tests, pupil assignment

(b) in numeracy the tests used are - teacher made tests, calculation, externally prepared tests and pupil assignments.

(c) In social awareness the tools used are externally prepared tests and pupil assignment.

(d) In environmental awareness the tools used are observation test, teacher made test, externally prepared test and pupil assignment.

C. In Orissa there is no public examination at present at the end of Class V in the formal sector. Previously there was a public examination at the end of Class V which has been discarded to discourage stress on bookish education. As the cost of printing has gone high externally prepared printed tests are used for internal examination for the sake of economy. In the non-formal sector there is also no public examination at the end of class V. As there is no public examination at the end of Class V, no criteria has been fixed about the fitness of the candidates, for appearing at the public examination.

D) Analysis of item nos 6, 7, 9 of the tool 4 indicate the following :

i) Evaluating techniques are exhaustive for the subject areas only.

ii) Evaluation of knowledge and skill are done in language, mathematics, natural science and social science.

E) Analysis of item no. 20 of tool 4 indicates the following :

- i) For development of attitude of learners towards society, community singing, debates, discussions and literacy competitions are made.
- ii) For development of habits personal cleanliness and community- safai are undertaken.

F) Analysis of item no. 11 and 12 indicates the following :

- i) Those who complete the entire N.F.E. programme at the primary level are awarded certificates. However, the drop outs are not awarded certificates.

#### State level evaluation

Assessment of N.F.E. programme for the State of Orissa was not undertaken. But this evaluative study sponsored by N.C.E.R.T. is the first step for evaluation of Non-formal Education in the state of Orissa.

### Nature of pupil evaluation at the middle level

Rational analysis of the curriculum

Government circulars and Regulation of the Board of Secondary Education, Orissa, 1983 reveal the following :

#### A. Nature of evaluation

The curriculum for the middle level indicate evaluation. Government circulars and Regulation of the Board of Secondary Education, Orissa, 1983 provides for evaluation of learners attainment with the following purpose in view.

- i) For certification at the end of the middle stage. As this evaluation takes place at the end of a stage it is termed as summative evaluation.
- ii) For helping the child to learn.

For this formative evaluation is undertaken, quarterly, half yearly, annually, at the end of a unit and at the time of teaching learning situation.

- iii) For improving the quality of teaching. For this purpose diagnostic evaluation is undertaken at the end of each unit. This evaluation helps remedial teaching.

iv) For multiple point of entry. For this purpose both formative and summative evaluation are envisaged.

3) Agency, frequency, and nature of tools of evaluation at the middle level.

1) a) Assessment is done both internally and externally at the middle level. Internal assessment is done by instructor at the middle level. The supervisor also conducts internal evaluation at the time of his visit alongwith the teacher.

b) External evaluation is done by the District Inspector of Schools, Heads of teacher Training Institutes sponsored by the Board of Secondary Education, Orissa at the end of the middle level alongwith the middle school certificates examination of the formal schools at the end of class VII.

2) The suggested tools are teacher made reading test, teacher made writing test, externally prepared tests, pupil assignment, dictation, teacher made test, calculation observation test.

3) Frequency of tests are indicated below :

Tests are conducted quarterly at the time of teaching learning, at the end of the unit and

at the end of the programme. Quarterly tests cover also half yearly and annual tests. External examination is conducted at the end of the programme.

4) From the analysis of the responses to item no. 2 to 5 of tool 4 the following points are revealed.

a) In literacy the tools suggested are teacher made reading test, teacher made writing tests, externally prepared test, pupil assignments and dictation.

b) In numeracy the tests suggested are teacher made test, calculation, externally prepared test, pupil assignments.

c) In social awareness the tools suggested are externally prepared tests.

d) In environmental awareness the tools suggested are observation tests, teacher made tests and pupil assignment.

e) In Orissa there is a public examination at the end of the middle stage both for formal and non-formal sectors. For this external examination at the end of the middle stage written tests in different subjects are prepared by the Board of Secondary Education, Orissa. These written tests

are administered to students of middle level by the district inspector of schools and heads of teacher training institutes. The written answers are centrally evaluated and marks are awarded to the examinees on the basis of their performance. Then grades are assigned on their mark basis. Then certificates are awarded to the successful candidates only.

The criteria for deciding about the fitness of the learners for appearing at the public examination are internal assessment and completion of the course.

The criteria for assessing the eligibility of the child for entry into the middle level are possession of certificate of primary level and completion of primary level course at N.F.E. centres.

#### State level evaluation of N.F.E. programme

No provision has been made as yet by the State Government for the evaluation of N.F.E. programme in Orissa. However, this evaluative study sponsored by the Government of India and N.C.E.R.T. has undertaken the task of evaluating the Non-formal Education Programme in Orissa. We are grateful to the authorities of Govt. of

India and N.C.E.R.T. for providing us the opportunity of evaluating non-formal education in the State of Orissa.



C H A P T E R V.

COMMON CURRICULUMS USES

On the basis of this study, on status of N.F.E. in Orissa some critical issues have been brought to light.

Whether the same centralised formal curriculum be used both for the formal and non-formal sectors.

According to the philosophy of N.F.E. the curriculum of N.F.E. should be need based. It should be socially relevant, functional and flexible. But a common state level curriculum will not be locally relevant. It may not suit to the locality where the N.F.E. centre is located. It may be rigid. So the centralised formal curriculum is not suitable to non-formal learners. But to develop such a curriculum participation of the people is essentially needed. But the vast majority of people are illiterate and do not know their needs. The teachers used to formal system have not the competency to develop very suitable decentralised need based curriculum. So a compromise between a totally centralised rigid state level formal curriculum and totally decentralised flexible need based curriculum

will have to be made. So there should be separate curriculum for N.F.E. for Orissa and the same centralised formal curriculum should not be used for non-formal learners.

As a compromise between these two types of curriculum is essentially necessary at the present situation a common core for both should be developed. This core should be determined on the minimum essential learning needs.

Six objectives for the curriculum based on minimum needs have been identified for developing countries. They are:

- i) Positive attitudes towards cooperation, work, community and national development and ethical values.
- ii) Functional literacy and numeracy.
- iii) A scientific out look and an elementary understanding of the process of nature.
- iv) Functional knowledge and skills for raising a family and operating a household.
- v) Functional knowledge and skill for earning a living.
- vi) Functional knowledge for civic participation.

These six objectives should be operated in such manners that they should give a clear

guide the instruction and training on educational basis.

So the centralised formal curriculum of Orissa should be restructured on the basis of minimum learning needs relevant to life. It should be free from book dominating approach. Then it will be convenient for the N.F.E. learners to enter the formal system at different levels.

So the present centralised rigid curriculum of the formal system be modified to make it life centric, functional and need based so that it will easily accommodate non-formal learners. This formal curriculum should clearly contain the objectives methods of teaching and evaluation procedure. All these elements are not clearly mentioned in the present formal curriculum.

A curriculum for the N.F.E. learners based on the six objectives enumerated above suitable to children of different socio-economic groups, relevant to life and needs of the N.F.E. learners be prepared with all the elements of a good curriculum.

A restructured curriculum for the formal schools and a new curriculum for the non-formal centres are to be developed in Orissa. The State Government and the S.C.E.R.T. Orissa may take steps to develop these two types of curriculum.

The problem of instructional materials.

Environment specific, life centric, self learning instructional materials suitable to learners are very few in our state. So cognitive knowledge based learning materials used in the formal system are used in non-formal centres in Orissa.

The reason is that text book writers in Orissa are used to write formal text books and they do not know the skill to produce life centric need based local specific integrated textbooks useful to N.F.E. learners. The state policy is to produce nationalised textbooks for the formal system on a large scale for the sake of economy. There is also no machinery except the S.C.E.R.T. Orissa to produce learning materials suitable to N.F.E. learners. But N.F.E. learning materials which demand utmost care, environment, study of social need, psychology of N.F.E. learner's and other considerations. Such learning materials are essentially necessary for N.F.E. learners in Orissa. A machinery to develop such materials with the cooperation of experts and community leaders is a crying need for Orissa. Integrated life centric learning materials alone will help

the N.F.E. children to cover the course of elementary education within 4 to 5 years attending N.F.E. centres two to three hours a day at their convenience. These learning materials will help self-learning and N.F.E. children will easily acquire elementary education in a shorter space of time to universalize elementary education.

Teacher's guide books be prepared to give general instruction and principles of teaching to teachers in the teaching learning process. Teachers' hand books be developed for different N.F.E. text books so that teachers will get guidance to teach the N.F.E. text books properly getting clues from the teachers handbooks. Such guide books and hand books are also necessary for the formal system. All these teachers guide books and teacher's handbooks be developed for Orissa alongwith the N.F.E. textbooks.

#### Social change

Can free thinking and child centred education be developed through N.F.E. N.F.E is a power source which springs from liberated mind. Education generally liberates the mind and N.F.E. is conceived to liberate the mind. But the formal system is bookridden education. It is rather instruction by the teacher

who dominates in the teaching process. There is no scope for free thinking. The teacher is trained and experienced in the formal system. He teaches and directs the student to do what he advises. The child has no room for free thinking. The teacher thinks for the child. The teacher does not allow free thinking in a child. So how can the N.F.E. children develop free thinking to liberate the mind? Although free thinking is advocated in N.F.E. the system does not allow development of such free thinking. So liberating influence born of free thinking is advocated in N.F.E. the system does not allow development of such free thinking. So liberating influence born of free thinking only remains in theory. It is not practicable. So a decentralised, skilled based relevant curriculum through participation of the people is not also practicable due to the book ridden formal system and the teachers who are used to this formal system. If a proper N.F.E. curriculum would be developed it will be a powerful force to change society. It would shift the centre of learning from the teacher to the child. The education will be child centred and self-learning will be possible. For this child centred education the instructors of N.F.E. should have intensive training in N.F.E. But this is not possible at the

present set up. In N.F.E. has to make a compromise like the basic education and will remain confined to literacy and numeracy as its objective. That seems to be practicable at the present moment which frustrates the aims of N.F.E. However, steps be taken to generate free thinking in child and to make education child centred channelling N.F.E. in the right direction in the interest of the vast majority of children deprived of minimum elementary education. This would also help social change which N.F.E. advocates in the interest of the vast majority of down trodden people of India.



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